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Appendix 2: Career Path with a focus on Research



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1 Introduction

These pages describe the steps of the academic career path with a focus on research within the Faculty of Science and Engineering's [Career Paths in Science and Engineering](#). Each of the career steps is described in terms of a number of domains that each come with a set of criteria.

Domains

In order to proceed in the career path, a candidate must prove to have attained sufficient results in a number of domains. Candidates in this particular career path will make most of their efforts in the domains of research and education. In addition, they will have to obtain results in the domains of impact and organization. Candidates are also expected to actively develop themselves and improve their personal competences, which is what the supporting domains professionalization and competences are about.

Criteria

Each domain description starts with a main criterion, which describes in general terms what should be accomplished within that domain. This main criterion is subsequently elaborated into more specific criteria associated with particular aspects of the domain. Candidates are in principle expected to satisfy the main criterion as well as the more specific criteria. However, there are situations in which staff members do not need to (fully) satisfy the criteria as they are stated.

See the document 'Career Paths in Science and Engineering' for more information about the criteria and exceptions or [click here](#).



2 Assistant Professor 2

This page describes the criteria a candidate must satisfy in order to be appointed as Assistant Professor 2 with a focus on research.

Criteria pertaining to all Assistant Professors 2

- The candidate holds a PhD degree.
- The candidate is a team player who can work well in an international, culturally diverse environment.
- The candidate has good organizational competences.
- The candidate has good communication skills.
- The candidate has good command of spoken and written English and (is willing to learn) Dutch.
- The candidate is able to speak the Dutch language or motivated to speak it within five years (B1 level in CEFR).
- The candidate has the ambition and the potential to pursue a career path leading to the position of Associate Professor.

Additional appointment criteria pertaining to Assistant Professors 2 that focus on research

- The candidate has excellent research qualities, as shown by a publication record in international peer-reviewed journals and proceedings of renowned conferences.
- The candidate has great affinity with and a good track record in teaching, appropriate for the career stage.
- The candidate has (at the time of appointment) at least two years of postdoctoral experience and preferably research experience outside of the Netherlands.



3 Criteria for tenure

3.1 Research

Main criterion: Promising group leader

The staff member is well on track in building a strong research group and developing their own research line, which fits well with the profile of the research institute.

The above criterion is elaborated into the following more specific criteria:

Conducting research

- The staff member's development of their own line of research is well on track.
- The staff member group is acquiring shape and good progress has been made in setting up its research facilities, as may be expected within the time that the candidate has invested.
- The staff member is well integrated in the institute.

PhD students

- The staff member is supervising at least one PhD student.
- The staff member has taken steps to recruit additional PhD students.

Fundraising

- The staff member is familiar with appropriate funding schemes and has made a realistic funding plan for the coming years.

Academic publications and evidence of recognition

- The staff member has a clear strategy for sharing research results and has produced publications and/or has acquired other evidence of recognition since their start as Assistant Professor.
- The staff member has taken steps to extend their local, national and/or international network.

How to substantiate**Conducting research**

The staff member writes a statement (max 500 words) to demonstrate that they satisfy the main criterion and the specific criteria under this heading. The statement should concentrate on the staff member's research vision and steps they have taken and will take to realize their plans. Topics to address include:

- how the research group was set up and, if applicable, which equipment has been purchased and installed and which contracts or access agreements for shared infrastructure have been made (e.g. CERN, synchrotrons, supercomputers etc.)
- which research activities have been set up, what are plans for the future, and how do these contribute to the profile of the group and the institute
- how the staff member develops and participates within their group and institute (e.g. Did they suggest new activities that lead to cohesion or stimulate discussion? Are there internal collaborations based on shared interests?)

PhD students

The staff member elaborates briefly on the recruiting process of the first PhD student, how the supervision is going, and on the plans for recruiting additional PhD students (consider also external scholarship agencies, double-doctorates, participation Doctoral Networks, personal funding etc.).



Fundraising

A funding plan is set up that frames a vision when to apply for which grant schemes and why this prioritization is chosen. Ideally, a first proposal is submitted. In case of (planned) participation in a collaborative grant proposal, the role of the staff member in the consortium is briefly elaborated (co-applicant or lead, plus work package description in one sentence).

Academic publications and evidence of recognition

The staff describes their vision and strategy for sharing research results and for extending their network. How will their research be made available to others, and for what and how do they want to be recognised? The staff member gives an overview of publications and/or other evidence of recognition, such as invited talks, prizes, fellowships, network meetings, conference (co-)organization, committee membership.

3.2 Education

Main criterion: Inspiring teacher

The staff member is an inspiring teacher who provides research-driven education. The staff member takes a conscientious and reflective approach, demonstrating effective teaching delivery that develops over time. The staff member actively seeks to create positive conditions for student learning.

The above main criterion is elaborated into the following more specific criteria:

Teaching

- The staff member is able to inspire students and to provide research-driven education.
- The staff member can teach basic Bachelor and Master courses and has didactic knowledge that is relevant to these courses.
- The staff member prepares and teaches the courses of the relevant degree programme assigned to them in a good manner, ensuring that the learning outcomes in terms of student knowledge, understanding, competences and skills are achieved.
- The staff member reflects on the effectiveness of their teaching and assessment, and, if necessary, makes adjustments during the execution of their courses to ensure that students are able to achieve the learning objectives.
- The staff member spends on average 30% of their working hours on teaching (including teaching development and professionalization), to be calculated according to FSE standards.

Education development

The staff member keeps the courses of the relevant degree programme assigned to them up to date.

Curriculum organization

The staff member is familiar with the faculty's policies for quality assurance and assessment and actively applies these to courses assigned to them.

How to substantiate

The staff member writes a statement on their education approach (max 500 words) to demonstrate that they satisfy the main and the specific criteria. In the statement, the staff member reflects on how their approach supports effective student learning. The statement should include how feedback from students and colleagues influenced their approach.

The statement should be supported with details of the courses taught (student numbers, nature of teaching, assessment methods, course evaluations, etc.). A record from Timeless may be used to demonstrate the working hours spent on teaching.



3.3 Impact

Main criterion: An eye for impact

The staff member is able to design and plan for impact. They provide at least one example of their effort, e.g. an application with an impact paragraph.

How to substantiate

The staff member provides at least one example of their effort, e.g. an application with an impact paragraph or active participation in outreach activities or interaction with a commercial party, aiming for collaboration and knowledge transfer.

3.4 Organization

Main criterion: Committed and responsible colleague

The staff member works well with others and is committed to the interests of the research institute and the faculty. The staff member shows initiative, takes responsibility and reflects on their own impact on others and on the organization.

The above main criterion is elaborated into the following more specific criteria:

Contribution to the organization

- The staff member contributes to an open, safe and inclusive working and learning environment.
- The staff member contributes to administrative and coordinating tasks within the research unit.

Leadership and collaboration

- The staff member coaches (less experienced) colleagues and promotes their development.
- The staff member conducts annual Results and Development (R&D) interviews with staff members they supervise.

How to substantiate

The staff member describes briefly how their behavior shows that they satisfy the main criterion and each of the specific criteria, by providing examples.

3.5 Professionalization

Main criterion:

The staff member is taking steps to develop into a broadly deployable and competent academic researcher and teacher.

The above main criterion is elaborated into the following more specific criteria:

- The staff member has obtained the UTQ certificate.
- The staff member has a personal development plan.
- The staff member has sufficient knowledge of English (at least level C1) to teach properly in this language.
- The staff member has followed workshops in order to further develop skills and competences relevant to this career path.

How to substantiate



The staff member adds copies of their UTQ (or information on the status) and their personal development plan to their tenure file as well as an overview of the workshops (training, courses, etcetera) that they have taken. They do not need to provide evidence about their English level, unless specific agreements were made in the context of their appointment or an R&D interview.

3.6 Competences

Main criterion:

The staff member possesses the competences needed for succeeding in the career path.

The following competences receive special attention at this career stage:

- **Integrity:** The staff member is honest, reliable and takes responsibility and accountability for their actions.
- **Self- and situational awareness:** The staff member reflects on their actions and various roles and how these affect others and the organization. The staff member is open to and invites feedback from others. The staff member has insight into how the institute and the faculty are organized and uses this knowledge for their benefit and that of the organization.
- **Communicative skills:** The staff member is able to transfer ideas and information in a clear and intelligible way, both in writing and verbally. The staff member communicates and provides feedback in a respectful, constructive and effective way.

How to substantiate

The staff member describes briefly how their behavior shows that they satisfy the main criterion and each of the specific criteria, by providing examples.



4 Associate Professor 2

4.1 Research

Main criterion: Strong research group

The staff member has built up a strong research group based on their own research line that clearly contributes to the profile of the research institute. The staff member is publishing in leading journals and is invited to speak at national or international conferences of renown. The staff member is successful in acquiring external funding for research and in recruiting and supervising PhD students as well as other group members, such as postdocs and MSc students.

This main criterion is elaborated into the following more specific criteria:

Conducting research

- The staff member has a viable and productive research group that produces original work of high quality.
- The staff member has developed a recognizable research line of their own that contributes to the profile of the research institute, addressing scientific questions that are relevant to their field and researching these questions by developing original techniques or strategies.

PhD students

- In the five years preceding the appraisal, the staff member was responsible for the supervision of at least 2 PhD students in the staff member's own research line who have either completed their thesis or show sufficient progress to be able to complete it in a short time.
- In the five years preceding the appraisal, the staff member has recruited at least one new PhD student for the staff member's own research group (not including PhD students funded from the staff member's start-up package).

Fundraising

- In the five years preceding the appraisal, the staff member has acquired a substantial amount of external research funding for their own group as principal investigator (PI) or as co-PI, totaling at least EUR 225,000. (It is possible to diverge from the quantitative criterion in exceptional cases if the funds available in the staff member's academic field have been insufficient and the staff member has made sufficient and good attempts to acquire external funding, while the prospering of the research group has been ensured using a different strategy.)

Academic publications and evidence of recognition

- The staff member has produced on average two or more high-quality publications per year.* The significant contribution of the staff member can be demonstrated, and the work is clearly embedded in their original and personal research line.
- The staff member's scientific contributions are demonstrably recognized by their peers.

**A different frequency is acceptable if it is in line with the standards of the field.*

How to substantiate

Conducting research

The staff member writes a statement (max 750 words) to demonstrate that they satisfy the main criterion and the specific criteria under this heading. The statement should concentrate on the staff member's research vision and steps they have taken and will take to realize their plans. Indicators for a viable group are incoming students (BSc/MSc), PhD students, postdocs and visiting scientists who are



producing a continuous stream of output that is recognized by peers. In line with most research activities at FSE the main route for demonstrating original work of high quality is through publications in prominent peer-reviewed journals or peer-reviewed conference proceedings, invitations to speak at national or international conferences and other evidence of scientific recognition.

PhD students

The staff member gives an overview of recruited and supervised PhD students. The staff member briefly elaborates on the status of each of the projects, including stage of completion and examples for successes of projects (e.g. evidence of recognition such as conferences, poster presentations, publications, outreach activities, thesis defenses). In case of shared supervision (e.g. in the context of double-doctorates, interdisciplinary collaboration etc.), the amount of supervision is weighed by the percentage contribution of the supervisor. This must be included in the staff member's promotion file, accompanied by a brief statement on the individual roles of the involved supervisors.

Fundraising

The staff member describes which funds have been (successfully) applied for. Funds provided by the University of Groningen are excluded. Any funding received jointly as part of a consortium must include a clear overview of the candidate's own role in the acquisition of this funding as well as which part of the total funding the candidate received through the application for his or her own research (only this part of the application must be included when calculating the total amount of research grants received by the candidate).

In case the staff member does not fully meet the quantitative funding criterion, they should also provide a brief overview of grant applications that were not awarded, including how they were assessed, to demonstrate that they have made sufficient efforts. In addition, the candidate should describe the funding limitations that apply to their field of research, and what alternative alternative/additional routes they chose to safeguard a viable group (e.g. scholarship students, double doctorate agreements, interdisciplinary projects, MSC Fellows).

Academic publications and evidence of recognition

The staff member provides an overview of publications and evidence of recognition of themselves and their group (invited talks, prizes and awards, membership of consortia, etc). In case of collaborations, the staff member briefly elaborates on their role in the resulting scientific work. The significant contribution of the staff member can be demonstrated, and the work is clearly embedded in their original and personal research line. The quantitative criterion for publications can be overruled when the evidence of recognition demonstrates that the staff member has outstanding impact in their field.

4.2 Education

Main criterion: Effective teacher

The staff member is an inspiring and effective teacher who provides and develops state-of-the-art research-driven teaching. The staff member demonstrates a student-centered approach, communicating clearly about learning objectives and assessment, promoting interactions, and monitoring their learning experience. The staff member actively seeks to create positive conditions for student learning, initiates didactic improvements and is involved with the organization of education.

This main criterion is elaborated into the following more specific criteria:

Teaching

- The staff member is able to inspire students and to provide research-driven education that is effective.



- The staff member is capable of teaching basic Bachelor and Master courses and has didactic knowledge that is relevant to these courses, including a good understanding of modes of instruction and modes of assessment.
- The staff member reflects on the effectiveness of their teaching and methods of assessment, and, if necessary, makes adjustments during the execution of their courses to ensure that students are able to achieve the learning objectives.
- The staff member understands the relationship between the learning outcomes of the courses for which they are responsible and the learning objectives of the associated degree programme and communicates this to students and colleagues.
- The staff member proactively monitors the students' educational and learning experience and responds professionally and in a timely manner to concerns about the structure, context and implementation of teaching (at the course unit and degree programme level).
- The staff member uses learning material which places the discipline in its academic and social context.
- The staff member spends on average 30% of their working hours on teaching (including teaching development), to be calculated according to FSE standards.

Education development

- The staff member updates and improves the teaching material and assessment of the courses assigned to them, accounting for important factors such as changes in the background and level of the students entering the course, developments in the field, societal needs and coherence with other courses.
- The staff member shares improvements in the teaching material or modes of instruction in their courses with colleagues.

Curriculum organization

- The staff member has a good understanding of the faculty's teaching organization structure and policies and contributes to the smooth running of teaching processes in which they are involved.

How to substantiate

The staff member writes a statement on their education approach (max 750 words) to demonstrate that they satisfy the main and the specific criteria. In the statement, the staff member reflects on how their approach supports effective student learning. Topics to address include:

- how the students educational and learning experience is monitored
- how feedback from students and colleagues influenced the staff member's approach
- why and how course improvements were made to course content, objectives and/or teaching materials
- in what way the staff member contributed to discussions about the design of the curriculum
- how they have contributed to the smooth running of the teaching processes.
-

The statement should be supported with details of the courses taught (teaching methods, assessment methods, student numbers, pass rates, etc.). The staff member may use formal student evaluation surveys as well as informal and unsolicited feedback from students or colleagues to substantiate their arguments. A record from Timeless may be used to demonstrate the working hours spent on teaching. Additionally, the staff member could add examples from their course content, objectives and materials. Note that the examples of evidence listed above are neither prescriptive nor exhaustive; it offers guidance on the types of evidence that could be used to demonstrate achievement but the evidence selected will depend on each individual case.

4.3 Impact



Main criterion: Strategy for impact

The staff member has developed a strategy to highlight the relevance of their research beyond their scientific community. Using this strategy and based upon their research, the staff member aims to influence changes in behavior, relationships, actions and/or activities of private and public stakeholders.

This main criterion is elaborated into the following more specific criterion:

- The staff member shows to have or have had a number “productive interactions”, i.e. exchanges with stakeholders outside of their own scientific field resulting in actual or potential collaboration in research or education.

How to substantiate

The staff member provides narrative evidence of their “productive interactions” with societal stakeholders. Examples are:

- lecturing or publishing about the research to a broad audience;
- collaboration with companies, governments, NGOs or other stakeholders to make the insights gained applicable in those organizations, e.g. preparing and/or writing a joint grant application;
- writing and filing a patent (partially) paid for by a societal partner.

4.4 Organization

Main criterion: Evolving leader

The staff member is evolving into a flexible leader who guides, inspires, and facilitates others to get the best out of themselves. The staff member is committed to and contributes significantly to the common goals of the research institute and the faculty.

This main criterion is elaborated into the following more specific criteria:

Contribution to the organization

- The staff member contributes to an open, safe and inclusive working and learning environment.
- The staff member spends at least 10% of their working time on academic community service (i.e. organizational roles within the university that transcend their own research and teaching interests).

Leadership and collaboration

- The staff member coaches colleagues and promotes their development, particularly with respect to research.
- The staff member conducts annual Results and Development (R&D) interviews with staff members they supervise.
- The staff member has insight in their preferred leadership style and can effectively employ it to motivate others.
- The staff member operates successfully when different interests and perspectives are at play and can effectively deal with resistance.
- The staff member contributes to national and/or international communities.

How to substantiate

The staff member describes how their behavior shows that they satisfy the main criterion and each of the specific criteria. In particular:



Contribution to the organization

The staff member gives an overview of activities that fall under academic community service, such as roles in working groups, committees, boards, at events of the degree programmes or the research institutes, etcetera.

Leadership and collaboration

- The staff member briefly reflects in writing on their preferred leadership style, explaining why you prefer it and how it helps you to motivate others.
- The staff member describes to which national or international communities they are contributing, such as the organization of conferences, memberships of panels, initiating consortia, roles in scientific organisation (e.g. NWO, ERC), etcetera.

4.5 Professionalization

Main criterion:

The staff member has made demonstrable efforts to improve their skills and competences, in line with their personal development plan.

This main criterion is elaborated into the following more specific criteria:

- The staff member has participated in education professionalization activities such as workshops and courses.
- The staff member has completed relevant leadership and management courses, including Coaching PhD students and Academic Leadership 1.
- The staff member has made demonstrable efforts to attain sufficient command of the Dutch language to be able to understand it well.

How to substantiate

The staff member describes to what extent they have executed their personal development plan. They give an overview of the professionalization activities that they have undertaken. Satisfaction of the Dutch language criteria should be demonstrated by means of a certificate (not needed if you can show the committee that you can converse well in Dutch).

4.6 Competences

Main criterion:

The staff member possesses the competences needed for being a successful Associate Professor.

The following competences receive special attention at this career stage:

- **Inspirational leadership:** The staff member is able to stimulate and support colleagues to develop themselves and obtain good results, providing autonomy as well as clear expectations.
- **Strategic vision:** The staff member has a well-articulated long-term vision, can translate this vision into concrete objectives, and is able to realize these objectives by guiding and steering others.
- **Empathy:** The staff member is accessible, available and attentive to their team members. The staff member stimulates an open atmosphere in which team members are encouraged to voice opinions and share concerns. The staff member ensures others feel recognised in their contributions.

How to substantiate

The staff member describes how their behavior shows that they have each of the competences, by providing examples.



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5 Associate Professor 1

Research

- In the five years preceding the appraisal, the staff member was responsible for the supervision of at least 3 PhD students in the staff member's own research line who have completed their theses.
- The staff member has acquired a substantial amount of external research funding for their own group as principal investigator (PI) or as co-PI, totalling at least EUR 225,000 since their appointment as Associate Professor 2, or at least EUR 450,000 in the last five years. (It is possible to diverge from the quantitative criterion in exceptional cases if the funds available in the staff member's academic field have been insufficient and the staff member has made sufficient and good attempts to acquire external funding, while the prospering of the research group has been ensured using a different strategy, and the candidate has at an earlier stage proven to be able to acquire substantial amounts of external funding.)

Education

- The staff member spends on average 40% of their working hours on teaching (including teaching development), to be calculated according to FSE standards. (This criterion overrides the criterion regarding teaching time associated with the promotion to Associate Professor 2.)

Organization

- The staff member is successfully fulfilling a leadership/management role within the faculty or the university, beyond their own research unit.

How to substantiate

Research

The staff member gives an overview of the number of recruited and supervised PhD students. The staff member briefly elaborates on the status of each of the projects, briefly elaborates on the number of recruited and supervised PhD students, including stage of completion and examples for successes of projects (e.g. evidence of recognition such as conferences, poster presentations, publications, outreach activities, thesis defenses). The completed trajectories should include one or more PhD students that were not yet counted for the promotion to Associate Professor 2.

The staff member describes which grants have been (successfully) applied for. Any funding received jointly as part of a consortium must include a clear overview of the candidate's own role in the acquisition of this funding as well as which part of the total funding the candidate received through the application for his or her own research (only this part of the application must be included when calculating the total amount of research funds received by the candidate). A part of the funding should have been acquired after the promotion to Associate Professor 2.

In case the staff member does not fully meet the quantitative funding criterion, they should also provide a brief overview of grant applications that were not awarded, including how they were assessed, to demonstrate that they have made sufficient efforts. In addition, the candidate should describe the funding limitations that apply to their field of research, and what alternative alternative/additional routes they chose to safeguard a viable group (e.g. scholarship students, double doctorate agreements, interdisciplinary projects, MSC Fellows). Finally, the candidate should indicate which substantial external grant(s) or other forms of external funding they have acquired at an earlier stage of their career, where 'substantial' refers to grants from which in total at least one PhD student or postdoc was financed.



Education

The candidate demonstrates having spent 40% or more time on teaching and teaching innovation in the previous years. This criterion overrides the criterion regarding teaching time associated with the promotion to Associate Professor 2, which was that the staff member spends on average 30% of their working hours on teaching.

Organization

The staff member provides a description as well as a brief self-evaluation of the leadership and management roles that they have fulfilled in the previous years. Examples of such roles are the chairpersonship of working groups or committees on the level of the faculty or the university.



6 Full Professor 2

6.1 Research

Main criterion: Leading researcher

The staff member conducts leading research that contributes to the development or positioning of the institute, the faculty or the university. The staff member must have a strong research group, where 'strong' stands for high-quality, productive, viable and lively. The staff member is clearly visible in their field and demonstrably contributes to setting the research agenda in their field, nationwide and internationally.

This main criterion is elaborated into the following more specific criteria:

Conducting and coordinating research

- The staff member has developed a clear and productive individual research line within the research programme of the basic unit or research institute.
- The staff member has a leading role in the implementation and coherence of the research programme of the basic unit and contributes significantly to the profile of the research institute.
- The staff member maintains extensive international contacts and collaborations, apparent from joint publications and work visits, among other things.

PhD students

- In the 5 years preceding the appraisal, the staff member was responsible for and contributed substantially to the supervision of at least four PhD students within their own research line until their PhD theses were approved by the PhD Assessment Committee and without incurring unreasonable delays.
- In the 5 years preceding the appraisal, the staff member has recruited at least 3 new PhD students for their own research group.

Fundraising

- In the 10 years preceding the appraisal, the staff member has acquired multiple substantial external research funds for their own group as principal investigator (PI) or as co-PI, totalling at least EUR 900,000. (It is possible to diverge from this criterion in exceptional cases if the funds available in the staff member's academic field have been insufficient and the staff member has made sufficient and good attempts to acquire external funding, while the prospering of the research group has been ensured using a different strategy.)

Academic publications and evidence of recognition

- The staff member has produced on average three or more high-quality publications per year.* The significant contribution of the staff member can be demonstrated, and the work is clearly embedded in their original and personal research line.
- The staff member's excellent scientific contributions are demonstrably recognized by their peers.

**A different frequency is acceptable if it is in line with the standards of the field.*

How to substantiate

Conducting research

The staff member provides a statement (max 500 words) by means of which they demonstrate to meet the criteria. Topics to address:



- What are you known for and how this links/discriminates you from other players in your field nationally and internationally?
- How is your work embedded in the institute and are there links to other groups within your institute or beyond?
- Which collaborations do you maintain and what makes these particular collaborations fruitful?

If applicable provide examples supporting your statements (e.g. awards, fellowships, publications, keynotes, collaborative publications/grants).

PhD students

The staff member gives an overview of recruited and supervised PhD students. The staff member briefly elaborates on the status of each of the projects, including stage of completion and examples for successes of projects (e.g. evidence of recognition such as conferences, poster presentations, publications, outreach activities, thesis defenses). In case of shared supervision (e.g. in the context of double-doctorates, interdisciplinary collaboration etc.), the amount of supervision is weighed by the percentage contribution of the supervisor. This must be included in the staff member's promotion file, accompanied by a brief statement on the individual roles of the involved supervisors. The 4 PhD students that should have (almost) completed their trajectory in the last 5 years may have started their trajectory more than 5 years ago.

Fundraising

The staff member describes which funds have been (successfully) applied for. Funds provided by the University of Groningen are excluded. Any funding received jointly as part of a consortium must include a clear overview of the candidate's own role in the acquisition of this funding as well as which part of the total funding the candidate received through the application for his or her own research (only this part of the application must be included when calculating the total amount of research grants received by the candidate).

In case the staff member does not fully meet the quantitative funding criterion, they should also provide a brief overview of requests that were not awarded, including how they were assessed, to demonstrate that they have made sufficient efforts. In addition, the candidate should describe the funding limitations that apply to their field of research, and what alternative alternative/additional routes they chose to safeguard a viable group (e.g. scholarship students, double doctorate agreements, interdisciplinary projects, MSC Fellows).

Academic publications and evidence of recognition

The staff member provides an overview of evidence of recognitions of themselves and their group (publications, conference presentations (oral/poster), prizes and awards, consortia etc.). In case of collaborations, the staff member briefly elaborates on their role in the resulting scientific work (e.g. which experiments were part of their package and what did they provide to the full story presented, how do they link to their original and personal research line). The significant contribution of the staff member can be demonstrated, and the work is clearly embedded in their original and personal research line. The quantitative criterion for publications can be overruled when the evidence of recognition demonstrates that the staff member has outstanding impact in their field.

6.2 Education

Main criterion: Skilled teacher

The staff member is an inspiring, effective and skilled teacher who provides and develops state-of-the-art research-driven teaching and who can effectively apply a variety of teaching and assessment methods. The staff member demonstrates a student-centered approach and uses evidence-informed approaches to enhance student learning and engagement. The staff member continuously seeks to improve their teaching and learning practice and initiates educational



innovations beyond course unit level. The staff member has a good understanding of the broader context in which they teach, both content-wise and organizationally.

This main criterion is elaborated into the following more specific criteria:

Teaching

- The staff member is an inspiring, effective and skilled teacher.
- The staff member uses a diverse range of modes of instruction and assessment that are based on knowledge about effective teaching and learning.
- The staff member proactively monitors the students' learning experience and responds professionally and in a timely manner to concerns about the structure, context and implementation of teaching (at the course unit and degree programme level).
- The staff member uses state-of-the-art and varied learning material which explicitly places the discipline in its academic and social context.
- The staff member spends on average 40% of their working hours on teaching (including teaching development), to be calculated according to FSE standards.

Education development

- The staff member updates and improves the teaching material and assessment of the courses assigned to them, accounting for important factors such as changes in the background and level of the students entering the course, developments in the field, societal needs and coherence with other courses.
- The staff member contributes demonstrably and successfully to activities on the level of the degree programme (learning line or variant), such as in educational innovation projects, and/or to education management, including committees in the education organization.

Curriculum organization

- The staff member actively inspires and supports colleagues to develop and improve their teaching, including PhD students in their group, and stimulates them to be informed about faculty's teaching and assessment policies.

How to substantiate

The staff member writes a statement on their education approach (max 750 words) to demonstrate that they satisfy the main and the specific criteria. In the statement, the staff member reflects on how their approach supports effective student learning. Topics to address include:

- how the students educational and learning experience is monitored
- how feedback from students and colleagues influenced the staff member's approach
- the staff member's vision and activities regarding education development on the level of the degree programme
- what the staff member has done to inspire and support colleagues to develop and improve their teaching.

The statement should be supported with details of the courses taught (teaching methods, assessment methods, student numbers, pass rates, etc.). The staff member may use formal student evaluation surveys as well as informal and unsolicited feedback from students or colleagues to substantiate their arguments. A record from Timeless may be used to demonstrate the working hours spent on teaching. Additionally, the staff member could add examples from their course content, objectives and materials.

Note that the examples of evidence listed above is neither prescriptive nor exhaustive; it offers guidance on the types of evidence that could be used to demonstrate achievement but the evidence selected will depend on each individual case.



6.3 Impact

Main criterion: Research with impact

The staff member shows development in having and executing a strategy to highlight the societal relevance of their research and/or the research of their group and/or another unit they belong to (e.g. institute, theme, faculty) beyond their scientific community. They show support for impact or outreach activities of their group members or others with whom they collaborate. Using this strategy and based upon the output of their own research, staff members aim to influence change in behavior, relationships, actions and/or activities of private and public stakeholders.

This main criterion is elaborated into the following more specific criterion:

- The staff member shows to have a growing number “productive interactions”, i.e. exchanges with stakeholders outside of their own scientific field resulting in actual or potential collaboration in research or education.

How to substantiate

The staff member provides a narrative with evidence of their own “productive interactions” with societal stakeholders and those of their group members or other collaborators whom they have supported. Examples are:

- lecturing or publishing about the research to a broad audience;
- collaboration with companies, governments, NGOs or other stakeholders to make the insights gained applicable in those organizations, e.g. preparing and/or writing a joint grant application;
- writing and filing a patent (partially).

6.4 Organization

Main criterion: Inspiring leader

The staff member is an inspiring leader who effectively stimulates their group members to get the best out of themselves and achieve good results. The staff member is committed to the common goals of their research institute and the faculty and contributes substantially to their realization, among other things by inspiring others to do so.

This main criterion is elaborated into the following more specific criteria:

Contribution to the organization

- The staff member actively promotes an open, safe and inclusive working environment.
- The staff member spends at least 10% of their working time on academic community service (i.e. organizational roles within the university that transcend their own research and teaching interests).

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Leadership and collaboration

- The staff member effectively uses various leadership styles, depending on the requirements of the situation.
- The staff member has participated in Selection Committees or committees regarding the organization of teaching and research at Faculty or institute level.
- The staff member has successfully (had) a leadership/management role in the research institute (e.g. leader base unit, board institute) or in degree programmes (i.e. programme director, chairperson programme board, chairperson board of examiners).
- The staff member contributes significantly to relevant national and international networks and introduces colleagues and group members to these networks.



How to substantiate

The staff member describes how their behavior shows that they satisfy the main criterion and each of the specific criteria. They include an overview of activities they have undertaken and the (leadership) roles they have had that show they satisfy the specific criteria.

Contribution to the organization

The staff member gives an overview of activities that fall under academic community service, such as roles in working groups, committees, boards, at events of the degree programmes or the research institutes, etcetera.

Leadership and collaboration

The staff member provides a reflection on the leadership styles they employ and how it helps them to navigate different types of situations.

6.5 Professionalization

Main criterion:

The staff member has in the last five years made demonstrable efforts to improve their skills and competences, in line with their personal development plan.

This main criterion is elaborated into the following more specific criteria:

- The staff member has participated in professionalization that concern education activities such as courses, workshops, and seminars.
- The staff member has completed leadership and management courses.
- The staff member has a sufficient command of the Dutch language to be able to speak and understand it well (speaking and listening at least level B2 of the European Framework of Reference).

How to substantiate

The staff member describes to what extent they have executed their personal development plan. They give an overview of the professionalization activities that they have undertaken. Satisfaction of the Dutch language criteria should be demonstrated by means of a certificate (not needed if you can show the committee that you can converse well in Dutch).

6.6 Competences

Main criterion:

The staff member possesses the competences needed for being a successful Full Professor.

The following competences receive special attention at this career stage:

- **Connecting leadership:** The staff member can create common ground and inspire others to collaborate on common goals, in their own research group as well as more broadly in the organization.
- **Courage:** The staff member dares to take risks and take responsibility for unpopular decisions. They intervene when it is needed and do not avoid difficult conversations. They are open to alternative viewpoints and criticism and dare to discuss their own weaknesses and be vulnerable.
- **Integrity:** The staff member is trustworthy and transparent in their goals and decision-making and promotes these values to others. The staff member stimulates an atmosphere in which questions about integrity are raised and discussed.



university of
 groningen

faculty of science
 and engineering

board

How to substantiate

The staff member describes how their behavior shows that they have each of the competences, by providing examples.



7 Full Professor 1

7.1 Profile of the Full Professor 1

The Full Professor 1 is a role model and figurehead within the Faculty of Science and Engineering and the University more broadly and is recognised as such by others, as evidenced by positions, appointments, and roles. The Full Professor 1 has a major impact on the position of the Faculty and the University in terms of research, education, impact and organization. For at least one of the domains the candidate meets the criterion described below, while the candidate has also made substantial and demonstrable contributions to the other domains, which go beyond what is expected of a Full Professor 2 with the candidate's focus domain.

7.2 Research

The candidate meets the criteria regarding research associated with the level of Full Professor 2 in the career path with a focus on research. In addition, the candidate meets the following criterion:

The staff member is an international authority in their field and a visible leader who exerts substantial influence on their field of research.

Indicators that the candidate meets this criterion are:

- The candidate has a demonstrable impact on the national and international research agenda in their field.
- The candidate has initiated and leads large national and international research collaborations.
- The candidate publishes continuously in leading journals in their field and is highly cited, i.e. well above the standard in the field.
- The candidate plays leading roles in an (inter)national research society/organization.
- The candidate is frequently invited as (key-note) speaker at important national and international science/technology conferences.
- The candidate has received prizes, honorary doctorates, national and international awards or other distinctions.

7.3 Education

The candidate meets the criteria regarding education associated with the level of Full Professor 2 in the career path with a focus on education. In addition, the candidate meets the following criterion:

The staff member is a national or global leader in teaching and learning with substantial impact on educational practice and/or pedagogical knowledge on the level of the university and beyond.

Indicators that the candidate meets this criterion:

- The candidate visibly shapes and informs teaching and learning strategies or policies at the university, national and international levels.
- The candidate initiates and leads national and international collaborations on education.
- The candidate demonstrates sustained, high-impact contribution to pedagogical research and knowledge, with impact across their field of expertise.
- The candidate plays leading roles in (inter)national educational society/organizations.



- The candidate is frequently invited as a (key-note) speaker at important national and international conferences on developments in academic education.
- The candidate has received funding, national and international awards or other distinctions that demonstrate their leadership in education.

7.4 Impact

The candidate meets the criteria regarding impact associated with the level of Full Professor 2 in the career path with a focus on impact. In addition, the candidate meets the following criterion:

The staff member is an exceptionally successful leader in the area of knowledge exchange and societal impact.

Indicators that the candidate meets this criterion:

- The candidate has achieved exceptional successes (i.e. that go well beyond the criteria for Full Professor 2 with a focus on impact) in one or more of the following areas of societal impact: collaboration with industrial and other societal partners, entrepreneurship, influence on policy-making, outreach to the general public.
- The candidate maintains an extensive network of societal partners from which their institute, the faculty and the university benefit.
- The candidate plays leading roles in an (inter)national society/organization.
- The candidate receives (inter)national recognition for their societal impact, as evidenced by invitations for important national and international conferences.
- The candidate has received funding, national and international awards or other distinctions that demonstrate their leadership in societal impact.

7.5 Organization

The candidate meets the specific criteria regarding organization associated with the level of Full Professor 2 in one of the career paths, as well as the following criterion:

The staff member is an exemplary and visionary leader who contributes substantially to the academic organization and community, within the faculty and the university as well as beyond.

Indicators that the candidate meets this criterion:

- The candidate has a clear and convincing vision of teaching, research, and/or impact that goes beyond their own field, can propagate this within and outside the institute, can translate this into demonstrable strategic actions and initiates large-scale movements on the basis of their vision.
- The staff member is heavily involved in attracting, retaining and developing talent for the organization and acts as role model and mentor to less experienced colleagues.
- The staff member has successfully managed or is successfully managing large organizational entities within the university, such as an institute or school.
- The staff member leads and is a member of prominent and influential national and international councils, committees and (advisory) bodies.